HOST PRINTING - SERIAL
(OSC-2)

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VERSION (1.0)

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HOST PRINTING - SERIAL

OVERVIEW

Host printing refers to the ability to use printers that are directly connected to the district's IBM-RS6000 MUNIS host. Connection of printers directly to the RS6000 host is the most reliable option. This manner of connection is always more efficient and requires the least management effort.

Most of the RS6000s throughout the Commonwealth have one (1) parallel and two (2) serial ports, one of which is used for the UPS power management software. Ports on the RS6000 are in the back of the unit and labeled S (for serial) and P (for parallel). Normally a district can connect one (1) parallel printer and one (1) serial printer directly to their RS6000 financial server to enhance printing functionality.

This document provides instructions for host printing using the serial port. **In order for the printer to work on the serial port, you must use a null modem cable or null modem adapter.** (Both are available at your local computer re-seller.) **The cable must be attached to serial port S1 on the RS6000 and the serial interface on the printer.**

KETS Standard Printers

KDE supports KETS standard high speed dot matrix and/or high speed line printers. KETS help desk support is only available for KETS standard equipment. Districts that wish to configure or use printers that are not KETS standard should work with their re-seller or original equipment vendor to add or configure additional (non-KETS) equipment.

This document includes only high speed dot matrix or high speed line printers on KETS price contract as of 1/1/98. The physical setup and AIX virtual printer settings are addressed. Settings for each printer were tested in a lab environment and in the field by DAS Technical Support.

Below is the current list of high speed printers on the KETS price contract:

High Speed Dot Matrix

Data Products 8524

Mannesmann Tally MT360

Level 1 Line Printer

Decision Data 6605

Genicom 4810

Level 2 Line Printer

Decision Data 6608-A00

Genicom 4840

Standard Print Queues

Standard print queues were defined for MUNIS printing and are listed below:

Queue Name	Explanation
draft_q	normal print draft mode - host **parallel** printing
print_q	normal print near letter quality (NLQ) mode - host **parallel** printing
conden_q	condensed print - host **parallel** printing
check_q	8 lines per inch normal print used for check printing - host **parallel** printing
draft_qs	normal print draft mode - host **serial** printing
print_qs	normal print near letter quality (NLQ) mode - host **serial** printing
conden_qs	condensed print - host **serial** printing
check_qs	8 lines per inch normal print used for check printing - host **serial** printing
draft_qr	normal print draft mode - **remote** printing
print_qr	normal print near letter quality (NLQ) mode - **remote** printing
conden_qr	condensed print - **remote** printing
check_qr	8 lines per inch normal print used for check printing - **remote** printing
das_q	prints to a remote printer at the DAS Training Facility
fin_q	prints to a remote printer at the KDE Division of Finance in Frankfort.

NOTE: ***Your printer's emulation must match the type of printer in your AIX queue configuration. If these are not identical, printing will exhibit strange and sporadic symptoms.***

DATAPRODUCTS 8524 PRINTER

The DataProducts 8524 is a KETS standard high-speed dot matrix printer. This section provides instructions for completing the physical printer setup necessary to print from MUNIS. After completing the physical setup, refer to the section entitled ***Print Queues*** to complete your AIX printer configuration.

Friction Feed Lever

Make sure the paper friction lever is pulled toward the front of the printer. This puts the printer in tractor feed mode. Otherwise, the friction feed and the tractor feed on the printer will counteract one another and cause the printer to jam. (Refer to page 12 of the DataProducts User's Manual for further information.)

Print Head Position Lever

The lever in front of the friction feed lever is the print head adjustment lever. Make sure this lever is set appropriately for the type of forms you are feeding through the printer. (For example, if you are going to print three-part accounts payable or payroll checks, set the print head adjustment level to the corresponding number of forms.) It is recommended that the printer be set at **four-part forms** and left on that setting.

Failure to set the head adjustment correctly will cause multi-part forms to jam under the printer's print head, and paper to backup on the tractor feed. (Refer to page 19 of the DataProducts User's Manual for further information.)

Extended Setup

To set or modify physical printer settings, the printer must be in extended setup mode. Do this by turning the printer off, holding the setup key down and then turning the printer back on. Continue to hold down the setup key until the LCD panel displays "Extended Setup."

To move between menu options use the **Park** key and the **Paper** key. To change settings within a particular menu option, use the **M.LF** key and the **M.RLF** key. To select a setting within the menu option, press the **Enter** key once and it will place an asterisk next to that setting. Settings marked with an **asterisk** are the active settings.

Pressing the **Paper** key once should display the first menu option. The display should read "1 Multipart."

Setting the Printer to Factory Defaults

1. Once you are in Extended Setup mode and the display reads "1 Multipart," press the **Left Arrow** key once. The display will read "65 Setup Listing."
2. Press the **Down Arrow** key twice and the display will read "List: Extend."
3. Press the **Enter** key and your current settings will be printed out.
4. Turn off the printer.
5. Hold down the **Setup** key while powering on the printer to go back into Extended Setup mode. The display will read "1 Multipart."
6. Press the **Right Arrow** key until the display read "8 Select Setup."
7. Press the **Down Arrow** key until the display reads "Set.Factory."
8. Press the **Enter** key which will load the factory default settings.
9. Press the **Reset** switch. The printer is initialized with the factory default settings.

Physical Printer Setup

To perform the physical printer setup, you must again go into extended setup mode. Below are explanations of the most important menu options and the recommended settings.

NOTE: ***Numbers associated with menu options may vary.***

Menu Options

Selections are made by using the **arrow** keys to display the desired setting and then pressing the **Enter** key.

1. **Multipart -** Controls how hard the print head strikes the paper.

   Normal *is the default setting.*

   Select **Copy: Normal1** to strike the original plus 4 copies. This is user-definable, and will effect print clarity. (See DataProducts User Manual page 25.)

2. **Page Fanfold** - Use this menu option to set the length of the paper installed in the printer.

   11" *is the default setting.* ***Do not change.*** *(See DataProducts User Manual page 25.)*

3. **Page Single** - This option is for the page size setting for single or cut sheet paper.

   A4 Portrait *is the default setting.* ***Do not change.*** *(See DataProducts User Manual page 26.)*

4. **Font Select** - Changes the default font on the printer.

   Courier *is the default setting.* ***Do not change.*** *(See Data Products User Manual page 27.)*

5. **Char Pitch** - Changes the Characters Per Inch Printed.

   Pitch: 10CPI *is the default setting.* ***Do not change.*** *(See DataProducts User Manual page 28.)*

6. **Zoom-in/Out** - Enlarges or compresses the text size.

   100% *is the default setting.* ***Do not change.*** *(See DataProducts User Manual page 29.)*

7. **TOF Adjust** - This option is used for the Top of Form Adjustment.

   N-14 *is the default setting.* ***Do not change.*** *(See DataProducts User Manual page 30.)*

10. **Emulation** - Sets the type of printer that the DataProducts 8524 emulates.

    HP *is the default setting.*

    Select **EML: IBM.** In order for this printer to work with the MUNIS Software, it must be set to IBM emulation. (See DataProducts User Manual page 32.)

11. **Code Page** - This option sets the default language for the printer.

    C.P. : Roman-8 *is the factory default setting.* ***Do not change****. (See DataProducts User Manual page 32.)*

12. **Chr Tbl Epson** - Sets the character table when the printer is in Epson mode.

***Tbl: Italic** is the default setting. **Do not change**. (See DataProducts User Manual page 32.)*

13. **Chr Tbl IBM** - Sets the character table when the printer is in IBM mode.

    ***Tbl: Set 1** is the default setting. **Do not change**. (See DataProducts User Manual page 33.)*

14. **AGM IBM** - Sets the alternate graphics mode in IBM emulation similarly to Epson emulation in high density graphics.

    ***AGM: NO** is the default setting. **Do not change**. (See DataProducts User Manual page 33.)*

15. **CR Setting** - Sets the Carriage return.

    ***CR: CR ONLY** is the default setting. **Do not change**. (See DataProducts User Manual page 34.)*

16. **LF Setting** - Sets whether the printer sends a Line Feed or a Line Feed plus a carriage return at the end of a line.

    ***LF ONLY** is the default setting.*

    Select **LF: LF+CR** To work in MUNIS, it must be set to LF+CR. (See DataProducts User Manual page 35.)

17. **LF Pitch** - Sets the number of lines per inch printed.

    ***6 LPI** is the default setting.*

    Select **LF: 8 LPI** To work in MUNIS, it must be set to 8 LPI. (See DataProducts User Manual page 34.)

18. **Zero Style**

    ***No slash** is the default setting. **Do not change.** (See DataProducts User Manual page 35.)*

19. **National Font**

    ***USA** is the default setting. **Do not change.** (See DataProducts User Manual page 35.)*

20. **Tabulation** - Sets the printer's default tab stops.

    ***8 Char** is the default setting. **Do not change.** (See DataProducts User Manual page 36.)*

21. **Quality** - Sets the quality of print and is user-definable. (Note: The higher the print quality, the slower the printer prints.)

    ***CODE LQ** is the default setting. The printer will print at **136 CPS (CPS).** (See DataProducts User Manual page 36.)*

30. **Paper Width** - Sets the width of the fanfold paper currently installed in the printer.

    ***10 IN** is the default setting.*

    Select **WIDTH: 15 IN** The majority of reports printed in MUNIS need wide carriage paper that requires the setting to be 15". (See DataProducts User Manual page 37.)

31. **Auto Scroll** - This setting advances the paper to the tear-off position when there is no data in the communications buffer.

    ***No Scroll** is the default setting. **Do not change.** (See DataProducts User Manual page 37.)*

32. **Override BM** - This setting will allow your software to override the pre-designated setting for the bottom margin.

    ***Yes** is the default setting. **Do not change.** (See DataProducts User Manual page 38.)*

33. **Label Mode** - This setting prevents continuous form mailing labels from being peeled from the backing and becoming jammed on the printer.

    ***No** is the default setting.*

    Select **Label MD: YES** To keep labels from jamming in the printer, this needs to be set to yes. (See DataProducts User Manual page 39.)

34. **P. OUT DTCT** - This setting turns detection for Paper Out on and off.

    ***Yes** is the default setting. **Do not change.** (See DataProducts User Manual page 39.)*

35. **Skip Perfor**. - Sets the printer to skip over the paper's perforation.

    ***Do not change** the factory default setting. (See DataProducts User Manual page 40.)*

36. **CSF Options** - Sets options when the optional cut sheet feeder is installed on the printer.

    ***Not installed** is the default setting. **Do not change.** (See DataProducts User Manual page 40.)*

37. **Paper Feed** - Sets the paper feed method if more than one option is installed.

    ***P. Feed: Fanfold** is the default setting. **Do not change**. (See DataProducts User Manual page 40.)*

40. **Interface** - Sets which communications interface the printer will be using.

    ***I/F: Parallel** is the default setting.*

    Select **I/F: Serial** (See DataProducts User Manual page 41.)

41. **SLCT IN ENBL** - Sets whether or not the printer accepts the "select" or "deselect" code for the host system.

***SLCT IN: 0** is the default setting. **Do not change**. (See DataProducts User Manual page 41.)*

42. **Parity Bit** - (For Serial Printing) Sets the appropriate transmission data frame.

    ***Parity: NON** is the default setting. **Do not change**. (See Dataproducts User Manual page 42.)*

43. **Data Length** - (For Serial Printing) Sets the appropriate data length.

    ***Length: 8 BITS** is the default setting. **Do not change**. (See DataProducts User Manual page 42.)*

44. **Stop Bit** - (For Serial Printing) Sets the appropriate number of stop bits.

    ***Stop Bit: 1 Bit** is the default setting. **Do not change.** (See DataProducts User Manual page 42.)*

45. **Protocol** - (For Serial Printing) Sets appropriate communications protocol.

    ***PROT: DTR** is the default setting.*

    Select **PROT: Xon/Xoff1** (See DataProducts User Manual page 42.)

46. **BAUD RT** - (For Serial Printing) Sets the data communications speed.

    ***Speed: 9600 B** is the default setting.*

    Select **Speed: 19200 B** (See DataProducts User Manual page 42.)

47. **Serial Error** - (For Serial Printing) If there is an error in printing, the data in error will print out as an asterisk (*) on the page when this option is used.

    ***S. Error: Print** is the default setting. **Do not change**. (See DataProducts User Manual page 43.)*

48. **CTS Enable** - (For Serial Printing) This function enables or disables the "Clear to Send" signal for the serial interface.

    ***CTS: NO** is the default setting. **Do not change**. (See DataProducts User Manual page 43.)*

49. **CD Enable** - (For Serial Printing) This function enables or disables the "Carrier Detect" signal for the serial interface.

    ***CD: NO** is the default setting. **Do not change.** (See DataProducts User Manual page 43.)*

50. **DSR Enable** - (For Serial Printing) This function enables or disables the "Data Set Ready" signal for the serial interface.

***DSR: NO** is the default setting. **Do not change**. (See DataProducts User Manual page 43.)*

51. **Buffer Size** - Sets the size of the printer communications buffer.

    ***B.Size: 60KB** is the default setting. **Do not change**. (See DataProducts User Manual page 44.)*

52. **Busy/ACK** - (For Parallel Printing) Sets the timing for the ACK signal to be sent.

    ***Timing: Type 2** is the default setting. **Do not change**. (See DataProducts User Manual page 43.)*

53. **Data Latch** - (For Parallel Printing) Sets the timing for data signals.

    ***LTCH: Type F** is the default setting. **Do not change**. (See DataProducts User Manual page 44.)*

60. **Print Dir** - Sets the printer print direction.

    ***Print: Code** is the default setting, and sets the printer to print bi-directionally. **Do not change**. (See DataProducts User Manual page 45.)*

61. **Display Lang** - Sets default language for the LCD Display on the printer.

    ***Lang: English** is the default setting. **Do not change**. (See DataProducts User Manual page 46.)*

62. **Invert Disp** - Sets the printer's LCD Panel to display upside-down in case the printer is turned the opposite way on the table.

    ***Invert: No** is the default setting. **Do not change**. (See DataProducts User Manual page 46.)*

63. **Software Set** - Allows the printer in special situations to be controlled by your application software. This setting is **CRITICAL for MUNIS Reports.**

    ***No** is the default setting.*

    Select **SOFTWARE: YES** In order for various reports to print in MUNIS, this must be set to YES. (See DataProducts User Manual page 46.)

64. **Save Setup** - The printer has 3 predefined areas for the user to save settings. To change settings quickly, pre-define them and save them in one of the three areas. By selecting one of the pre-defined settings, you may change the way the printer prints without having to go through all the setup steps again. Once all of the above mentioned settings have been made, save them under the first option.

    Save: Memo 1 Once you have saved the settings, the printer will ask you to press the reset switch to make these settings active. (See DataProducts User Manual page 47.)

Decision Data 6605/6608-A00 Printers

The Decision Data 6605 is a KETS Level 1 line printer, and the Decision Data 6608-A00 is a KETS Level 2 high speed line printer. This section provides instructions for completing the physical printer setup necessary to print from MUNIS. After completing the physical setup, refer to the section entitled ***Print Queues*** to complete your AIX printer configuration.

Setting the Printer to Factory Defaults

When you turn the power on, the printer will run diagnostics and then display "ONLINE, LinePrinter+."

1. Press the **Online** key once to place the printer in Offline mode. The printer will display "Offline, Config. Control."
2. Raise the printer cover and press the **Up** and **Down** arrow keys **simultaneously** to unlock the Enter key.
3. Press the **prt config** key and the display will read “Enter to Print, Other to Exit.”
4. Press the **Enter** key to print out the current settings.
5. Press the **Down** key twice and the display will read “Load Config 0.”
6. Press the **Enter** key to load the default factory configuration.

Physical Printer Setup

1. Unlock the enter key by placing the printer in the Offline mode, raising the printer cover, and then pressing the **Up** and **Down** keys simultaneously. The display will read “Enter Switch Unlocked” and then change to read “Offline Config Control.”
2. Press the **Next** key and the printer will display "Offline, Emulation."
3. Press the **Down** arrow key 3 times until the printer display reads "Printer Protocol, P-Series.”
4. Press the **Next** key 3 times until the printer display reads "Printer Protocol, Proprinter XL."
5. Press **Enter** and the display will read “Printer Protocol, Proprinter-XL* to indicate that Proprinter-XL has been selected.
6. Press the **Up** arrow key 3 times and the display will read “Offline Emulation.”
7. Press the **Next** key twice and the display will read “Offline Host Interface.”
8. Press the **Down** key once and the display will read “Host Interface Centronics.”
9. Press the **Next** key twice and the display will read “Host Interface Serial.”

10. Press the **Enter** key and the display will read “Host Interface Serial*.”
11. Press the **Down** key once and the display will read “Serial Interface Type.”
12. Press the **Next** key twice and the display will read “Serial Baud Rate.”
13. Press the **Down** key once and the display will read “Baud Rate 9600.”
14. Press the **Next** key once and the display will read “Baud Rate 19200.”
15. Press the **Enter** key and the display will read “Baud Rate 19200*.”

Saving the Settings

1. Press the **Up** key 3 times and the display will read “Offline, Host Interface.”
2. Press the **Next** key 4 times and the display will read “Offline Config Control.”
3. Press the **Down** arrow key and the display will read "Config. Control, Load Config."
4. Press the **Next** key and the display will read "Config. Control, Save Config."
5. Press the **Down** arrow key once and the display will read "Save Config 1."
6. Press the **Enter** key and the printer will display "Saving Configuration."
7. The printer is now configured for serial printing and the Enter key should be locked by pressing the **Up** and **Down** keys **simultaneously**.
8. Press the **Online** key to place the printer online.

GENICOM 4810/4840 PRINTERS

The Genicom 4810 is a KETS Level 1 line printer, and the Genicom 4840 is a KETS Level 2 line printer. This section provides instructions for completing the physical printer setup necessary to print from MUNIS. The settings given below have been most reliable for Genicom printers. After completing the physical setup, refer to the section entitled ***Print Queues*** to complete your AIX printer configuration.

Printer Setup

Turn on the printer's power. The printer will go through a self-test and loading of software. Display will show "Loading... Wait." When the printer displays "Ready" press the **On-Line** key and the display will then show "On-Line." Load the paper, making sure it is well aligned and the printing head is below the perforated line. Depress the **Form Feed** key a couple of times to verify the paper is feeding correctly.

Setting the Printer to Factory Defaults

1. Press the **Next Option/On-Line** key and the display will show "Local."
2. Press the **Exit/Function** key until the display shows "FCT:Reverse FF."
3. Press the **Previous Option/CPI/LPI** key once and the display will read “FCT:Status.”
4. Press the **Enter/Program** key once. The printer will print out the current configuration.
5. Press the **Exit/Function** key twice and the display will read FCT:Reverse FF.”
6. Press the **Next Option** key twice and the display will read "FCT:Setup."
7. Press the **Enter/Program** key to enter Setup Mode. The display will read “Setup: Initialize.”
8. Next press the **Enter/Program** key again to initialize to the factory default setup. The display will read “Self Test, Loading….Wait, and then Local.”

Physical Printer Setup

1. Press the **Enter/Program** key once and the display should read "PRG:Font."
2. Press the **Next Option/Online** key ten times and the display should read "PRG:Emulation."
3. Press the **Enter/Program** key once and the display will read “Emul:ANSI.”
4. Press the **NextOption/OnLine** key 3 times until "Emul:Proprinter" is displayed.

5. Press the **Enter/Program** key to select **Proprinter** emulation. The display should read "Self Test, Loading….Wait, and then Local."
6. Press the **Enter/Program** key once and the display will read "PRG:Font."
7. Press the **Next Option/Online** key four times until "PRG:Interface Op" is displayed.
8. Press the **Enter/Program** key twice and the display should read "Type:Parallel."
9. Press the **Next Option/Online** key once and the display should read "Type:Serial."
10. Press the **Enter/Program** key once and the display should read "Self Test, Loading….Wait, and then Local: Ready."
11. Press the **Enter/Program** key once and the display should read "PRG:Font."
12. Press the **Next Option/Online** key four times and the display should read PRG:Interface Op."
13. Press the **Enter/Program** key once and the display should read IFOp:Type."
14. Press the **Next Option/Online** key once and the display should read IFOp:Serial Set."
15. Press the **Enter/Program** key once and the display should read "SerOp:Protocol."
16. Press the **Next Option/Online** key four times and the display should read "SerOp:Speed."
17. Press the **Enter/Program** key once and the display should read "Speed:9600 Baud."
18. Press the **Next Option/Online** key once and the display should read "Speed:19200 Baud."
19. Press the **Enter/Program** key once and the display should read "Baud Rate Set" and then "Speed:19200 Baud."
20. Press the **Exit/Function** key four times and the display should read "Local:Ready."
21. Press the **Next Option/Online** key once and the display should read "Online:Ready."

Test Pattern Printing

Press the **Quit/Test/Clear** key and hold it down. The test pattern will be printed as long as this key is depressed.

MANNESMANN TALLY (MT360) PRINTER

The Mannesmann Tally (MT360) is a KETS high speed dot matrix printer. This section provides instructions for completing the physical printer setup necessary to print from MUNIS. After completing the physical setup, refer to the section entitled ***Print Queues*** to complete your AIX printer configuration.

Emulation

When a printer can interpret the control commands written for another type of printer, it is said to emulate the other printer. The Mannesmann Tally printer emulates the IBM Proprinter XL24e and the Epson LQ2550 in its standard version. The RS6000 AIX print queues have been set up to emulate the IBM Proprinter XL24e. Therefore, it is necessary to make sure your printer is set to emulate the same.

Three (3) different menu configurations can be created and activated by the Mannesmann Tally (MT360) printer. By default, menu 1 and 3 emulate Epson LQ2550, and menu 2 emulates the IBM Proprinter XL24e. Ensure that your printer is always set to menu 2 when printing MUNIS/IQ files and reports. Printer emulation is the only parameter in the Mannesmann Tally printer menu setups that is not automatically set or overruled via the AIX queue settings.

AIX/MUNIS print jobs sent to a printer configured differently than the queue will create sporadic results. It is possible to LOCK the menu parameters to prevent unauthorized change. However, it is not possible to prevent selection of different menus. Therefore it is suggested you modify all three menus to the IBM Proprinter XL24e emulation parameter setting and regardless of which menu is selected, it will be properly set up for printing MUNIS/IQ files and reports.

Setting Printer Functions in the Setup Menu

With the aid of keys 1 through 4 (see Figure 1 below), it is easy to program your printer when it is in setup mode. The setup menu contains a number of parameters which can be changed as required. You can move back and forth in the main menu level (which is divided into 13 levels) with the 1 (Next) key or with the 4 (Back) key. With keys 2 and 3, select the function that requires parameter changes. Depending upon your selection, the display then changes to a sub-menu or to parameter mode (see Figure 2 below).

NOTE: ***You are in a main or sub-menu when BACK and NEXT are displayed on the second line of the display.***

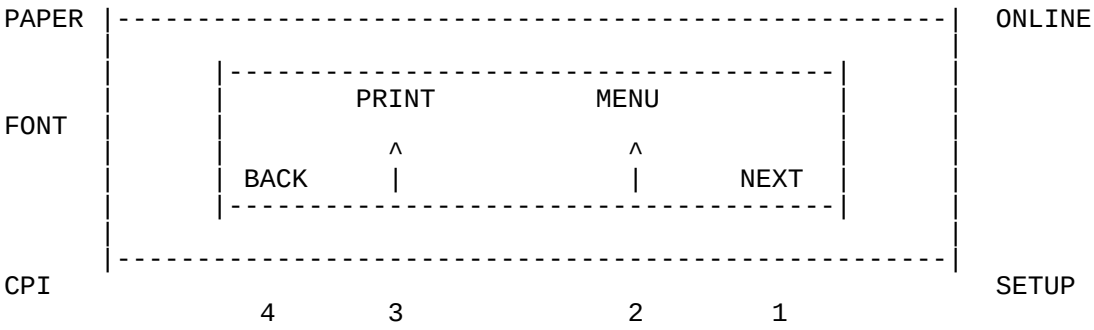
In a sub-menu, you must still select the function you want to change with keys 2 and 3. The display automatically changes to parameter mode after it has reached the end of a menu tree (end of the selection levels).

When the printer is in parameter mode, the upper line of the display shows the selected function with its set parameter (marked with an asterisk *). You can change the value with keys 2 and 3. If you want to change the parameter back to its original value, press the 1 (Exit) key. You then leave parameter mode and are once again in menu mode. Confirm a

newly selected parameter with the 4 (Set) key. An acoustic signal is given and the selected parameter is displayed marked with an asterisk (*) for about 1 second. The display then automatically returns to menu mode. If you have no further adjustments, exit the setup menu with the Setup key.

NOTE: ***Printer functions which have been set in the setup menu remain stored even after switching off the printer. Please read "Menu settings (installing)" on page 23 and "Programming example" on page 29 in Chapter 2 of the Mannesmann Tally User Manual. The programming procedure is clarified in Chapter 2, pages 29 through 31. A menu description table can be found in Chapter 2, pages 38-48.***

Figure 1 Printer Menu Levels Display

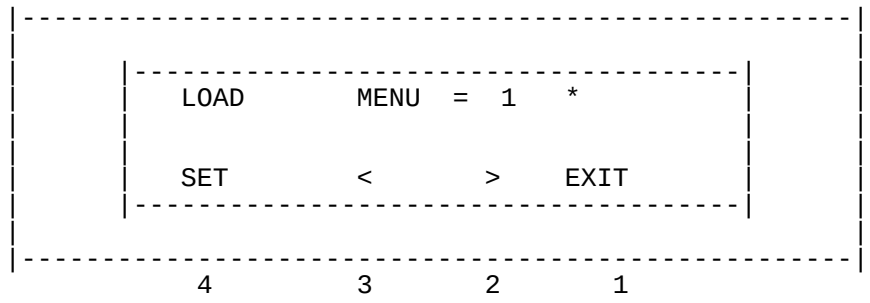


Setting the Printer to Factory Defaults

1. To program a menu selection, first switch the printer on and put it in **Offline** status by pressing the **Online** key. The **Online** key toggles the printer between OnLine/OffLine modes.
2. Press the **Setup** key to display the two menu levels, **Print** and **Menu,** as in Figure 1 above.
3. Press the **3** key (Print) to print the current printer settings. Save this copy to later confirm your printer settings if any problems should arise.
4. Select the function **Menu** with the **2** key. The display will change to Parameter mode and show the currently loaded menu (marked with an *).

NOTE ***The menus can be printed by pressing the 3 key. Save this copy to confirm your printer settings if problems should arise.***

Figure 2 Printer Parameter Mode Display - Currently Loaded Menu



5. The first menu (**MENU = 1 ***) is loaded in the default configuration. All parameter adjustments completed via the setup menu are stored and written in this menu. If you want to change parameters in another menu, press the **2** or **3** key until the desired menu (one of three menus that can be selected) is shown on the display.

6. Confirm your selection with the **4** key (**Set**). An asterisk (*****) is shown on the display for approximately one (1) second as depicted above to confirm your selection. Then the display automatically returns to the menu levels in setup mode.

NOTE: ***You are in a main or sub-menu when BACK and NEXT are displayed on the second line of the display. With the 1 (Next) key, you can go through the setup menu in the customary manner. You have the possibility of setting the parameters as desired (see Setting Printer Functions in the Setup Menu). The parameters which have been changed are automatically written in the current menu.***

7. Press the key that points to **Next**.

8. Press the key that points to **Reset** and "Reset Menu 1" will be displayed.

9. Press the key that points to **Yes** and you will hear a series of tones.

10. Press the key that points to **Back**.

11. Repeat steps 4-10 for Menus 2 and 3.

Physical Printer Setup

1. Press the key that points to **Menu**.

2. Press the key that points to **>** until "Load Menu = 2" is displayed.

3. Press the key that points to **Set**. You will hear a series of tones.

4. Press the key that points to **Next** five times.

5. Press the key that points to **I/O**.

6. Press the key that points to **Serial**.
7. Press the key that points to **Baud**.
8. Press the key that points to **>** until "Baud=19200" is displayed.
9. Press the key that points to **Set**. You will hear a series of tones.

Press the **On Line** button. The printer will display "Initializing 380" and go online.

PRINT QUEUES

After printers are physically configured, print queues must be added on the RS6000 server. The following instructions are for setting up necessary print queues in AIX to support MUNIS printing requirements. When a specific printer requires a particular setting, it is noted. Otherwise, the instructions apply to all printers. AIX print queues should be configured by the AIX (RS6000) System Administrator.

Setting up draft_qs

1. Login to the RS6000 server as "root" at the console.
2. At the $ prompt, type in **smit** and press **Enter**.
3. Select **Devices**.
4. Select **Printer/Plotter**.
5. Select **Printer Spooling**.

   Note: ***It may be necessary to remove old print queues if you are replacing an old or failed printer. If removal is <u>not</u> necessary, proceed to step 6. To remove existing print queues, select Remove a Print Queue and remove all print queues from this selection, except das_q, fin_q, or queues for other printers.***

6. Select **Add a Print Queue**.
7. Select **Local - Printer Attached to Host**.
8. For **DataProducts 8524** , select **IBM** and press **Enter**.

   For **Decision Data 6608-A00**, select **IBM** and press **Enter**.

   For **Genicom 4810/4840**, select **Other** and press **Enter**.

   For **Mannesmann Tally (MT360)**, select **IBM** and press **Enter**.
9. For **DataProducts 8524** , select **ibm2391-IBM 2391 Personal Printer II** and press **Enter**.

For **Decision Data 6608-A00**, select **4202-2 IBM Model 2 Proprinter II XL** and press **Enter**.

For **Genicom 4810/4840**, select **4840-P Genicom Model 4840 - Proprinter Emulation** and press **Enter**.

For **Mannesmann Tally (MT360)** select **ibm4208-2 - IBM 4208 Model 2 Proprinter XL24E** and press **Enter**.

10. Select **rs2323** and press **Enter**.
11. Select **sa0 available 00-00-S1 Standard I/O serial Port 1** and press **Enter.**
12. Type in the name of the print queue you wish to make (**draft_qs**). **DO NOT** press Enter.
13. With the arrow keys, select the **baud rate** field and press the **F4** key.
14. With the arrow keys, select **19200** and press **Enter**.
15. With the arrow keys, select **Flow control to be used** and press the **F4** key.
16. With the arrow keys, select **Xon** and press **Enter**.
17. Press **Enter** again to create the print queue.
18. Press **F3 twice** to return to the Print Spooling menu.
19. Select **Change/Show Print queue Characteristics.**
20. Type in the print queue name you want to modify (e.g., **draft_qs**).
21. Select **Default Print Job Attributes**.
22. Press the **down** arrow key until you get to **Print Quality** and press **F4**. Select **Draft** and press **Enter**.
23. Press the **down** arrow key until you get to **Page Length.**
24. Change page length to **0**.
25. Press the **down** arrow key until you get to **Page Width.**
26. Change page width to **132.**
27. Press **Enter**.
28. Press **F3 twice** to return to the Print Spooling Menu.

Setting up print_qs

1. Select **Add a Print Queue** again.

2. Perform the same steps as above (steps 6-18) EXCEPT enter **print_qs** for the queue name.
3. Select **Change/Show Print queue Characteristics.**
4. Type in the print queue name you want to modify (e.g., **print_qs**).
5. Select **Default Print Job Attributes**.
6. Press the **down** arrow key until you get to **Print Quality** and press **F4**. Select **NLQ** and press **Enter**.
7. Press the **down** arrow key until you get to **Page Length.**
8. Change page length to **0**.
9. Press the **down** arrow key until you get to **Page Width.**
10. Change page width to **132.**
11. Press **Enter**.
12. Press **F3 twice** to return to the Print Spooling Menu.

Setting up check_qs

1. Select **Add a Print Queue** again.
2. Perform the same steps as above (steps 6 -18) EXCEPT enter **check_qs** for the queue name.
3. Select **Change/Show Print queue Characteristics**.
4. Type in the print queue name you want to modify (**check_qs**).
5. Select **Default Print Job Attributes**.
6. Press the **down** arrow key until you get to **Print Quality** and press **F4**. Select **Draft** and press **Enter**.
7. Press the **down** arrow key until you get to **Restore Printer**.
8. Change restore printer option to **NO.**
9. Press the **down** arrow key until you get to **Send form feed after each file**.
10. Change form feed option to **NO**.
11. Press the **down** arrow key until you get to **Condensed Print**.
12. Verify that condensed print is set to **NO** (default).

13. Press the **down** arrow key until you get to **Page Length**.
14. Change page length to **56**.
15. Press **down** arrow key until you get to **Line Density (Lines Per Inch)**.
16. Change line density to **8**.
17. Press **Enter**.
18. Press **F3 twice** to return to the Print Spooling Menu.

Setting up conden_qs

1. Select **Add a Print Queue** again.
2. Perform the same steps as in setting up draft_qs above (steps 6 -18) EXCEPT enter **conden_qs** for queue name.
3. Select **Change/Show Print queue Characteristics**.
4. Type in the print queue name you want to modify (e.g., **conden_qs**).
5. Select **Default Print Job Attributes**.
6. Press the **down** arrow key until you get to **Print Quality** and press **F4**. Select **Draft** and press **Enter**.
7. Press the **down** arrow key until you get to **Pitch**.
8. Change pitch to **10**.
9. Press the **down** arrow key until you get to **Condensed Print**.
10. Change condensed print to +.
11. Press **Enter**.
12. Press **F3 twice** to return to the Print Spooling Menu.

Setting up the default print queue

1. At the print spooling menu select **Manage Print Queues**.
2. Select **Set the System's Default Print Queue**.
3. Type in **draft_qs**.
4. Press **Enter**.
5. Press **F3** until you exit **smit**.

CONFIGURING MUNIS PRINTERS

All of the above instructions pertain to enabling printing from the RS6000 MUNIS server to printers that are directly attached. Once printing capabilities are established, the printer must be defined in MUNIS to allow printing from MUNIS. For instructions on this last step, refer to the document entitled ***MUNIS System Administration (MSA-1)*** in the ***MUNIS User Procedures Guide***.